CALENDAR ITEM **C90**

Α	56	06/29/15
		PRC 9116.0
		RA# 32314
S	40	V Perez

CONSIDER AN APPLICATION FOR AN AMENDMENT OF A
STATE GEOTHERMAL RESOURCES LEASE ON BEHALF OF THE
CALIFORNA DEPARTMENT OF FISH AND WILDLIFE
FOR NON-SURFACE OCCUPANCY OF STATE PROPRIETARY LAND
WITHIN THE WISTER WATERFOWL MANAGEMENT AREA,
SALTON SEA GEOTHERMAL FIELD,
IMPERIAL COUNTY

APPLICANT:

Imperial Wells Power LLC Attn.: Mr. Vince Signorotti 12250 El Camino Real, Suite 280 San Diego, CA 92130

AREA, LAND TYPE, AND LOCATION:

Approximately 1,325 acres of State proprietary land located within the Wister Waterfowl Management Area, about three (3) miles southwest of the community of Niland, near the Salton Sea in Imperial County, as described in Exhibit A and depicted in Exhibit B, attached hereto.

BACKGROUND:

On November 5, 2012, Imperial Wells Power LLC (Applicant or Lessee) submitted an application for a non-surface occupancy Geothermal Lease (Lease) to explore and develop geothermal resources on approximately 1,611 acres within the Wister Waterfowl Management Area (WWMA). Of the 1,611 acres, the California Department of Fish and Wildlife (CDFW) owns 1,571 acres of proprietary land in fee, and the California State Lands Commission (Commission) manages 40 acres of reserved mineral interest (RMI) State school lands.

On February 21, 2014, the Commission, which is authorized by Public Resources Code section 6924 to issue geothermal leases on lands owned by State agencies, considered and approved the issuance of two separate Leases, Nos. PRC 9115.2 and PRC 9116.0, to the Applicant. Because the geothermal resources differed in ownership interest under these two parcels, separate leases were issued. Lease No. PRC 9116.0 pertains to the CDFW proprietary lands

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and Lease No. PRC 9115.2 pertains to the RMI State school lands.

On January 15, 2015, the Applicant filed a partial quitclaim deed, dated January 9, 2015, for approximately 246 acres of the original 1,571 acres for Lease No. PRC 9116.0 and a full quitclaim deed for Lease No. PRC 9115.2. The Commission accepted the quitclaim deeds at the February 20, 2015 meeting effective on January 15, 2015.

LEASE AMENDMENT:

On April 24, 2015, the Applicant submitted an application for a Lease Amendment for the 1,325 acres of CDFW proprietary lands, Lease No. PRC 9116.0, related to the bond requirement and the drilling obligations specified in the Lease. The Applicant requests that the bond amount, originally set at \$600,000, be reduced to \$100,000 which includes coverage for the first geothermal well drilled. Prior to the Lessee drilling any further wells, the bond amount would be increased by \$100,000 per additional well to be drilled, not to exceed the six (6) geothermal wells, into the leased premises as approved by the Lease.

The Applicant submitted an exploratory program and timeline for drilling and testing up to six (6) wells from up to three (3) well pads located on private lands adjacent to the WWMA. The Applicant anticipates that some of the six wells will project into the WWMA from the well pads. To date, drilling has not commenced nor have any drill pads been constructed on the private lands.

The Applicant believes that the current bond amount is excessive since the potential impact to the CDFW land is minimal. The Applicant is not permitted to use the surface of the 1,325 acres of leased land under any circumstance. Each geothermal well will also require a permit from the California Division of Oil, Gas, and Geothermal Resources (DOGGR) and a separate bond. DOGGR must approve all drilling activity, well completion work, and the abandonment program for each well. Before any well site can be constructed, Imperial County will also have to issue a permit that would include additional bonding and full reclamation plan for the drill site.

The Applicant is also requesting an extension of the drilling term from two (2) to five (5) years. The Applicant states that the market access for new geothermal electrical generating facilities in California is severely limited. Since 2008, none of the three California geothermal investor-owned utilities, or any other California municipal or cooperative entity that supplies retail electricity, has entered into a power purchase agreement where the power source is geothermal energy. Due to the difficult circumstances, the Applicant is requesting more time to begin drilling into the leased land.

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Because of these circumstances as described above, staff recommends:

- A reduction of the bond amount from \$600,000 to \$100,000 that would include coverage for the first geothermal well drilled. Before the Lessee drills any subsequent geothermal well, the bond would be increased prior to drilling each well by \$100,000 per new well drilled, up to six (6) wells, for a total of \$600,000 bond amount; and
- Extension of the drilling term (the time to initiate drilling) from two (2) to five (5) years.

STATUTORY AND OTHER REFERENCES:

A. Public Resources Code: Division 6, Parts 1 and 2

OTHER PERTINENT INFORMATION:

1. The staff recommends that the Commission find that the subject lease amendment to change the bond amount and drilling term does not have a potential for resulting in either a direct or a reasonably foreseeable indirect physical change in the environment, and is, therefore, not a project in accordance with the California Environmental Quality Act (CEQA).

Authority: Public Resources Code section 21065 and California Code of

Regulations, Title 14, sections 15060, subdivision (c)(3), and

15378.

EXHIBITS:

- A. Land Description
- B. Location Map
- C. Lease Document
- D. Lease Amendment

RECOMMENDED ACTION:

It is recommended that the Commission:

CEQA FINDINGS:

1. Find that the subject lease amendment to change the bond amount and the drilling term, are not subject to the requirements of CEQA pursuant to California Code of Regulations, Title 14, section 15060, subdivision (c)(3), because the subject activity is not a project as defined by Public Resources Code section 21065 and California Code of Regulations, Title 14, section 15378.

CALENDAR ITEM NO. **C90** (CONT'D)

AUTHORIZATION:

- 1. Authorize, effective June 29, 2015, the amendment of the State Geothermal Resources Lease No. PRC 9116.0 to: (a) reduce the bond from a sum of \$600,000 furnished at the commencement of the Lease to \$100,000 furnished within 15 days of the Commission's execution of the Lease Amendment and increased by \$100,000 per well prior to any subsequent well drilled to a maximum of \$600,000 for the six (6) wells authorized; (b) extend the drilling term of the Lease from two (2) to five (5) years; and (c) amend the Lease land description (Exhibit A, attached and by this reference made a part hereof) to reflect the quitclaim of 246 acres on January 15, 2015.
- 2. Authorize the Executive Officer or her designee to execute any documents necessary to implement the Commission's actions.

LAND DESCRIPTION

Three (3) parcels of land situate in Township 10 South, Range 13 East, Township 11 South, Range 13 East, and Township 11 South, Range 14 East, SBM., County of Imperial, State of California, and more particularly described as follows:

Parcel 1 – Patented School Lands, Portion of Section 36, T10S, R13E, SBM.

The West ½ of Section 36, Township 10 South, Range 13 East, SBM., Patented January 16, 1911 in Book 30 at Page 216, on file at the Sacramento Offices of the California State Lands Commission.

EXCEPTING THEREFROM the Northwest ¼ of the Northwest ¼ of said Section 36, Patented February 21, 1958 in Book 57 at Page 204, on file at the Sacramento Offices of the California State Lands Commission.

Parcel 2 – Department of Fish and Wildlife, Portion of Section 1 and Section 12, T11 S, R13E, SBM., and a portion of Section 6, T11S, R14E, SBM.

All of Parcels 25, 26, 27, and 28 described in SCC No. 28118, Final Order and Decree of Condemnation as to Parcels Nos. 1, 25, 26, 27, and 28, filed July 19, 1955 in Book 915 at Page 107 Official Records of said County.

EXCEPTING THEREFROM the East ½ of the Northeast ¼ of said Section 1, Township 11 South, Range 13 East, SBM in addition to Lots 5, 6, 7 and the Southeast ¼ of the Northwest ¼ of Section 6, Township 11 South, Range 14 East, SBM.

Parcel 3 – Department of Fish and Wildlife, Portion of Section 1, T11S, R13E, SBM.

All of Parcel 24 described in SCC No. 28118, Final Order and Decree of Condemnation as to Parcels Nos. 6, 8, 9, 11, 16, 21, and 24, filed June 29, 1954 in Book 888 at page 584 Official Records of said County.

END OF DESCRIPTION

Prepared May 15, 2015 by the California State Lands Commission Boundary Unit.



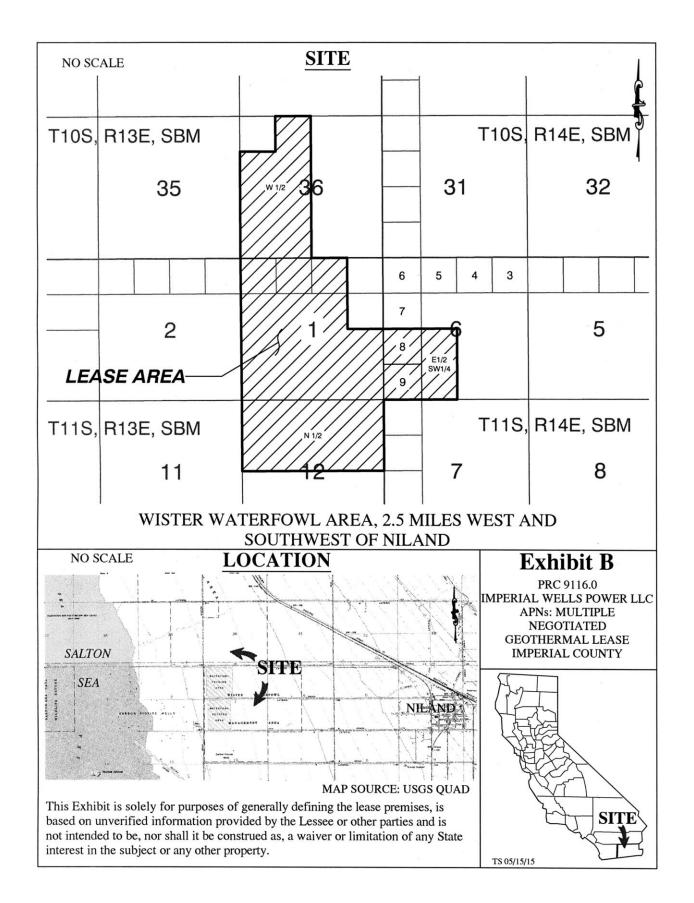


EXHIBIT C

PRC 9116.0

STATE LANDS COMMISSION State of California Geothermal Resources Lease (Subsurface Only-No Surface Use)

Pursuant to Division 6 of the California Public Resources Code, the California State Lands Commission (hereinafter referred to as "State"), for the consideration specified in this Lease, does hereby lease, demise and let to Imperial Wells Power LLC (hereinafter referred to as "Lessee") those Proprietary Lands ("Leased Land") of the State of California in Imperial County more particularly described in Exhibit A ("Land Description") and by reference made a part hereof subject to the reservations, terms, covenants and conditions of this Lease.

1. TERM

This Lease shall be for a primary term of ten (10) years commencing March 1, 2014, ("effective date") and for so long thereafter as geothermal resources are being produced or utilized, or are capable of being produced or utilized, in commercial quantities from the Leased Land or lands unitized therewith, as the term "unitized" is defined in Paragraph 15 of this Lease, unless sooner terminated as provided in this Lease.

2. PURPOSE OF LEASE

- (a) Lessee shall have the exclusive right to drill for, produce, utilize, save and sell geothermal resources from the Leased Land. Notwithstanding any other provision of this Lease, Lessee shall not have any express or implied right to use for any purpose any portion of the surface of the Leased Land to a depth of five hundred (500) feet. All drilling into or through the Leased Land shall be done by directional drilling from adjacent or other nearby lands.
- (b) Lessee shall have the exclusive right to inject geothermal fluids, or other fluids approved by the State, into the Leased Land and upon such terms and for consideration deemed by the State to be in the State's best interest. However, no consideration shall be required for injection if the State is receiving royalties based on production from the Leased Land or based on the State's participation in a producing unit incorporating the Leased Land. Lessee shall not have the privilege or right to store hydrocarbon or other non-condensable gas beneath the Leased Land, nor any other privilege or right not expressly given.
- (c) Lessee shall have the exclusive right to conduct surveys, tests or experiments using any geological, geochemical, geophysical or other exploratory method, including drilling, for determining the presence of geothermal resources in the Leased Land subject to the provisions of subparagraph 2(a) above and paragraph 13 below. No such survey, test or experiment shall be conducted without prior written approval of the State, such approval not to be unreasonably withheld.
- (d) The State shall have the right to go upon the Leased Land for the purpose of conducting surveys, tests or experiments using geological, geochemical, geophysical or other methods, including drilling, for determining the presence in the Leased Land of any mineral

deposits other than geothermal resources or for any other non-mineral exploratory reason, provided that such surveys, tests or experiments do not unreasonably interfere with or endanger Lessee's operations under this Lease. The State shall have the right to issue to persons other than Lessee nonexclusive exploratory permits or leases for minerals other than geothermal resources and for non-mineral purposes to conduct such surveys, tests or experiments or for any other purpose not incompatible with Lessee's activities authorized under this Lease. Lessee shall not interfere with the exercise of rights granted by the State to other persons to enter upon the Leased Land.

(e) Lease and operations under it shall be consistent with the principle of multiple use of public lands and resources as provided in Section 6906 of the Public Resources Code.

The term "geothermal resources" as used in this Lease shall have the meaning given to it by Section 6903 of the Public Resources Code.

4. STATE LEASE MANAGEMENT

Lessee shall execute a Standard Reimbursement Agreement with the State for the administration of this Lease, subject to a seven thousand five hundred dollar (\$7,500) per annum cap to start on March 1, 2014, with automatic annual renewals increasing the cap five percent (5%) per year thereafter. The lessee shall be billed for reimbursement of staff time incurred for the reasonable and necessary costs of field inspections, the administration and implementation of the terms of the Lease, including, but not limited to, engineering review, royalty verification and/or audit, reservoir and geologic review, annual lease reviews and any other staff time or expenditures to ensure lease operations conform to all the terms of the Lease and to the rules and regulations of the State currently in effect and those promulgated or amended after the effective date of this Amendment applicable to drilling and production operations in or on the Lease.

5. ROYALTY AND RENT

Lessee shall pay to the State the following royalties on geothermal resources produced, utilized, saved or sold from the Leased Land, and an annual land rent:

- (a) A royalty of either: (i) three percent (3%) of the gross proceeds from the sale of electrical power generated from the geothermal resources attributable to the Leased Land; or (ii) ten and one-half percent (10.5%) of the gross revenue received from the sale of steam, brines from which no minerals have been extracted, and associated gases produced from the Leased Land, at the point of delivery to the purchaser thereof; no deductions for charges made or incurred with respect to transmission or other services or processes shall be allowable against the State's royalty interest. Royalties shall be due and payable not later than the twenty-fifth (25th) day of the calendar month following the calendar month of production.
- (b) A royalty of five percent (5%) of the gross revenue received from the sale of mineral products or chemical compounds recovered from geothermal fluids attributable to the Leased Land in the first marketable form. This royalty shall be due and payable not later than the twenty-fifth (25th) day of the calendar month following the calendar month of production.
- (c) Royalties attributable to the Leased Land, if part of a producing geothermal unit, shall be determined based on a fraction, where the numerator is the number of acres comprising the Leased Land and the denominator is the total number of acres comprising the geothermal unit.

- (d) If, after the discovery of geothermal resources in commercial quantities on the Leased Land or lands unitized therewith, all royalties due to the State during any lease year do not equal or exceed the equivalent of twenty dollars (\$20.00) for each acre or fraction of an acre included in the Leased Land, then Lessee shall pay whatever amount is necessary to provide a minimum royalty of twenty dollars (\$20.00) for each acre or fraction of an acre.
- (e) An annual land rent of twenty-five dollars (\$25.00) for each acre or fraction of an acre included in the Leased Land, payable on the first day of this Lease and on each anniversary date of this Lease thereafter; on the six anniversary of this lease, the rental per net acre of fraction thereof, shall be increased from Twenty-Five dollars (\$25) to Fifty dollars (\$50), for so long thereafter as this Lease is in effect; provided, however, that once production of geothermal resources from the Leased Land begins, or the Leased Land becomes part of a producing geothermal unit, and royalty under subparagraph 5(a) above begins to accrue, the annual land rent shall immediately be reduced to one dollar (\$1.00) for each acre or fraction of an acre, the minimum allowed under Section 6913(c) of the Public Resources Code.

6. GEOTHERMAL RESOURCES IN KIND

At the State's option, which may be exercised upon sixty (60) days' prior written notice, Lessee shall deliver to the State in kind, and in lieu of royalties due to the State under subparagraph 5(a) of this Lease, a percentage of the geothermal resources produced, utilized, saved or sold from the Leased Land, determined in accordance with the percentage of royalties payable to the State under subparagraph 5(a) of this Lease. The State's exercise of this option shall be pursuant to Section 6913(f) of the Public Resources Code.

7. RENEGOTIATION OF CONSIDERATION

Pursuant to Section 6913(e) of the Public Resources Code, royalties stated in Paragraph 5 of this Lease shall be renegotiated on or after the twentieth (20th) anniversary of the initiation of commercial operation, which shall be thirty (30) days after the first generating unit has operated for a consecutive 24-hour period, and on every tenth (10th) anniversary thereafter. The negotiations shall not increase the maximum royalty rate by more than fifty percent (50%) over the royalty rate of the prior period.

8. INTEREST AND PENALTIES

- (a) Royalties, rentals and other monetary considerations which are not paid when due shall bear simple interest from their due date until they are paid at the rate of one and one-half percent (1.5%) per month on the unpaid balance.
- (b) Royalties, rentals and other monetary considerations which are not paid when due shall be assessed a penalty of five percent (5%) of the amount of any such past due royalties, rentals or other monetary considerations in accordance with regulations of the State.
- (c) Past due royalties, rentals and other monetary considerations include, but are not limited to, amounts which were not paid because of Lessee's unreasonable use of inaccurate information in computing the royalties, rentals and other monetary considerations and Lessee's unreasonable errors in the computations themselves. The determination of what errors of Lessee are unreasonable rests with the State.

9. DRILLING TERM

(a) Notwithstanding anything to the contrary in Paragraph 1 of this Lease, Lessee shall commence exploratory drilling operations within two (2) years from the effective date of this Lease.

If Lessee fails to commence such drilling operations before, or to prosecute them diligently thereafter, this Lease shall terminate.

- (b) Lessee shall drill wells, and conduct drilling operations from the drill sites outside of the California Department of Fish and Wildlife Wister Waterfowl Management Area, pursuant to The Imperial County Conditional Use Permit (CUP), and in accordance with the Negative Declaration prepared by Imperial County under the California Environmental Quality Act ("CEQA") as described in Paragraph 13.
- (c) This Lease has been issued on the basis of the environmental document referenced in subparagraph 9(b) of this Lease, and Lessee acknowledges that any further exploration or development activities on or into the Leased Land, beyond that specified under subparagraph 9(b) of this Lease, shall require the further approval of the State and be contingent upon and subject to additional environmental review of the project and site-specific impacts in accordance with the provisions of the Imperial County CUP.

10. OFFSET WELL REQUIREMENT

In the event any well is completed or placed on production after the effective date of this Lease on lands not owned by State with any part of its producing interval within five hundred (500) feet from the exterior boundary of this Lease, then the State may notify Lessee in writing to commence drilling an offset well thereto, and within reasonable time, not to exceed one hundred twenty (120) days, as specified in such notice, Lessee shall commence operations for drilling an offset well. An offset well shall mean a well the producing interval of which is situated at a location in the Leased Land not more than five hundred (500) feet from the point on the exterior boundary of the Leased Land nearest to the producing interval of the well to be offset. Notwithstanding the foregoing, if the Leased Land is part of a geothermal unit and shares in the revenue therefrom, wells drilled into that unit shall not create an obligation to drill an offset well into Leased Land.

11. OPERATIONS

- (a) Lessee shall meet with the State from time to time to discuss Lessee's ongoing operations, and any plans for future exploration, development and operation, as such operations or plans relate to the Leased Land or lands pooled or unitized with them.
- (b) All operations on or into the Leased Land shall be carried on in a safe and worker-like manner in accordance with generally accepted good engineering practice and with due regard for the protection of life and property, preservation of the environment and conservation of wildlife, plants, and other natural resources.
- (c) No well shall be drilled into the Leased Land, redrilled, perforated, plugged-back, altered, converted, or abandoned, and no wellhead shall be removed, without the prior approval of the State, such approval not to be unreasonably withheld. All drilling shall be performed subject to the provisions of this Lease, the Public Resources Code, and State regulations applicable to the drilling of geothermal wells in effect at the time of drilling.
- (d) Before commencing the drilling of a well into the Leased Land, Lessee shall notify the State of its intention to drill. The notice shall contain the location, derrick elevation, proposed depth and bottom-hole location, directional drilling program, drilling fluid program, blowout prevention equipment program, casing program, completion program, description of the size and

shape of the drilling site, including a geological engineering report on the site, planned excavation and grading, and location of existing and proposed access roads.

- (e) If any permits are required under the Federal Endangered Species Act, the California Endangered Species Act, and/or California Fish and Wildlife Code 1600, et. seq., for any wells to be drilled into the Leased Land, then Lessee shall consult with the U.S. Fish and Wildlife Service and/or the California Department of Fish and Wildlife, as applicable, regarding such permits.
- (f) Lessee shall abide by all special terms and conditions established by the California Department and Wildlife as described in "TERMS AND CONDITIONS FOR A NON-SURFACE OCCUPANCY NEGOTIATED GEOTHERMAL LEASE ON THE WISTER WATERFOWL MANAGEMENT AREA" attached as Exhibit B, herein.
- (g) No power plant facilities, buildings, structures, production equipment, metering systems, pipelines, roads or electrical transmission lines shall be installed or constructed on the Leased Land without prior State approval.
- (h) If Lessee sells steam, hot water from which no minerals have been extracted or associated gases, then Lessee shall meter the geothermal resources produced from the Leased Land. If Lessee sells electricity or mineral products derived from geothermal resources from the Leased Land, then Lessee shall meter such electricity or mineral products. Metering equipment shall be maintained and operated so that it will meet acceptable standards of accuracy. If the State believes reasonable standards are not being maintained, it shall give notice to Lessee and a reasonable opportunity to Lessee to upgrade such equipment. However, if the Leased Land is committed to a geothermal unit, then no separate metering of geothermal resources or minerals produced from the Leased Land shall be required.
- (i) If the Leased Land contains rock strata known or suspected by Lessee or the State to contain hydrogen sulfide (H_2S) , Lessee shall submit a contingency plan for the protection of personnel and equipment while drilling, establish a training program to promote efficient safety procedures in the H_2S contaminated environment, and install an H_2S detection system with an indicator and alarm. The contingency plan, training program and detection system must be approved by the State, such approval not to be unreasonably withheld.
- (j) The State shall make inspections of lease operations as necessary during the term of the Lease. All reasonable and necessary costs for the administration and implementation of the inspections of such operations shall be paid by Lessee through a Standard Reimbursement Agreement or other suitable instrument. All costs shall be calculated under provisions of the State Administrative Manual.

12. REQUIRED PRODUCTION AND TESTING

Except where the Leased Land is in an approved geothermal unit, if Lessee supplies geothermal resources to any facility from wells on both the Leased Land and wells on other lands, and all such wells together can produce a quantity of geothermal resources greater than the maximum quantity that can be used by the facility, Lessee shall produce and sell or use geothermal resources from the wells on the Leased Land in proportion to their deliverability relative to the total deliverability of all the wells. Further, if Lessee completes wells with productive intervals on both the Leased Land and adjacent land, Lessee shall perform tests to determine the allocation of production from each side of the Lease line. Lessee must obtain the approval of the State for both the method of testing and the resultant allocation of production, such approval not to

be unreasonably withheld.

13. ENVIRONMENTAL IMPACT

- (a) Lessee shall abide by the regulations, conditions and mitigation requirements set forth in Imperial County's Conditional Use Permit (CUP) G#13-0001, and any amendments to it, and Negative Declaration (ND, SCH #2013101059) and its amendments. Further, Lessee shall comply with all modifications of equipment and plans deemed necessary by the State to achieve the objectives set forth in the CUP and ND.
- (b) If the Lessee fails comply with the conditions, restrictions and mitigation measures imposed in subparagraph 13(a) above, the State shall notify the Lessee or its designated representative by telephone and written communication of the noncompliance, direct Lessee to cease all operations that are not in compliance, except emergency mitigative or corrective measures, and order Lessee to develop a remedial plan for the noncompliance which shall be implemented as soon as reasonably possible.
- (c) This Lease has been issued on the basis of the environmental documentation referenced in subparagraph 13(a) above. Lessee acknowledges that any drilling or development activity proposed specifically on or into the Leased Land from any drill site not permitted by such prior environmental documentation may require the further approval of the State and be contingent upon and subject to additional environmental review in accordance with the provisions of the CEQA. If the Lessee proposes development activities or operations on or into the Leased Land that require additional environmental analysis for which the State is lead agency under the CEQA, Lessee shall provide, in advance, funds sufficient to pay for the preparation of the required environmental documentation.
- (d) The State shall make inspections as necessary during the term of the Lease to verify compliance with the conditions, restrictions and mitigation measures imposed in subparagraph 13(a) above. All reasonable and necessary costs for the administration and implementation of such inspections shall be paid by the Lessee through a Standard Reimbursement Agreement or other suitable instrument. All costs shall be calculated under provisions of the State Administrative Manual and shall not exceed the State's actual costs.

14. WASTE OF RESOURCESDAMAGELOSS AND LIABILITY

Lessee acknowledges that the Leased Land is owned and managed by the California Department of Fish and Wildlife as part of the Wister Wildlife Management Area, which provides habitat for over 260 species of birds, including the endangered American Peregrine Falcon and the threatened Yuma Clapper Rail. Lessor is leasing these proprietary lands on behalf of the California Department of Fish and Wildlife in accordance with Section 6924 of the Public Resources Code. Lessee shall use all reasonable precautions to prevent waste of, damage to or loss of natural resources (surface and subsurface) and reservoir energy in or under the Leased Land and shall be liable to the State for any such waste, damage or loss to the extent that it is caused by the negligence of, the breach of any provision of this Lease by, or the noncompliance with applicable statutes or regulations by Lessee, or its employees, agents or contractors. Nothing in this Lease shall diminish any other rights or remedies which the State may have in connection with any such negligence, breach or noncompliance.

15. GEOTHERMAL UNITS

(a) Pursuant to Section 6923 of the Public Resources Code, for the purpose of conserving the natural resources of geothermal resources areas, Lessee may commit the Leased Land to a geothermal unit as provided below. As used herein, the term "geothermal unit" means a

cooperative plan of development and operation for the production, utilization, and conservation of geothermal resources, where separate lands and leases held or controlled by Lessee are pooled, developed, and operated as a single working unit. The terms "unitized" and "unitization" as used elsewhere in this Lease refers to the combining of lands to form a geothermal unit.

- (b) With the prior written consent of the State and as provided in subparagraph (f) below, Lessee may commit the Leased Land to one or more geothermal units, provided the Leased Land is committed in its entirety.
- (c) Lessee shall execute a declaration of unitization describing the lands or leases included within any geothermal unit to which the Leased Land is committed. A copy of each such declaration or amendment thereto shall be delivered to the State.
- (d) In the interest of increasing the ultimate recovery of geothermal resources, protecting steam from unreasonable waste, and protecting adjacent landowners, the State may require the Lessee to enter into a unit or cooperative agreement with respect to the Leased Lands.
- (e) Drilling operations on and production from lands so unitized with the Leased Lands shall be deemed to be drilling operations on and production from the Leased Land that are included in the unit.
- (f) If less than all of the Leased Land is unitized, the unitized acreage shall be severed from this Lease and shall be considered as a separate lease. Any part of the Leased Land not unitized shall remain fully subject to the terms of this Lease and shall be unaffected by operations or production on the unitized portion of the Leased Land or on acreage unitized with a portion of the Leased Land.

16. COMMINGLED PRODUCTION

Except where the Leased Land is in an approved geothermal unit, Lessee may commingle production from any two or more wells, without regard to whether such wells are located in the Leased Land or elsewhere, provided Lessee shall first install and maintain meters to measure the amount of geothermal resources produced from the Leased Land. Such commingling shall be discontinued at any time the State determines that standards of measurement for accuracy or quality are not being maintained, and shall not be resumed until such standards are restored.

17. SUSPENSION OF OPERATIONS

In the event of any disaster affecting the safety of operations on the Leased Land, or uncontrolled flow of geothermal resources or pollution resulting from operations on the Leased Land, Lessee shall immediately suspend all drilling and production operations responsible for the disaster, uncontrolled flow or pollution, except those which are corrective or mitigative, and promptly notify the State by telephone. Drilling and production operations shall not be resumed on the Leased Land until adequate corrective measures have been taken and authorization for resumption of operations on the Leased Land has been given by the State, such approval not to be unreasonably withheld.

18. SUBSIDENCE

Lessee and the State acknowledge that subsidence in the Salton Sea area, particularly that part of Imperial County where the Leased Land is located, is monitored by, and in accordance with the requirements of, the California Division of Oil, Gas, and Geothermal Resources ("CDOGGR") and the County. Lessee shall comply with all subsidence limitations and mitigation measures imposed on Lessee's operations in the Leased Land by law, the CDOGGR, and the County.

19. ENTRY BY STATE

Lessee consents to the inspection of its operations at all reasonable times by any person authorized by the State. Such inspection shall include, but not be limited to, inspection of wells, improvements, pipelines, metering equipment for geothermal resources production and power generation and all other fixtures used in connection with Lessee's operations in or adjacent to the Leased Land or lands unitized therewith. No entry by the State, or by persons authorized by the State, shall give Lessee any right to charge for or subject the State to liability for any loss of occupation or quiet enjoyment of the premises.

20. RECORDS AND REPORTS

Lessee shall keep accurate records of its operations on the Leased Land or lands unitized with them, and shall file with the State the following information in the time and manner specified:

- (a) Not later than the twenty-fifth (25th) day of the calendar month following the calendar month of production, Lessee shall submit a detailed royalty accounting statement in such form as may be prescribed by the State, including, but not limited to, information showing the amount of gross revenue derived from all geothermal resources produced, shipped, utilized or sold, and the amount of royalty due. At the request of the State, Lessee shall provide more detailed statements and explanatory materials in order to aid the State in interpreting and evaluating Lessee's royalty accounting statement. All statements are subject to audit and revision by the State. The State may inspect, at all reasonable times, all Lessee's books, records and accounts relating to operations under this Lease, including, but not limited to, the development, production, sale, utilization or shipment of geothermal resources. Lessee waives any statutory or other rights or objections it might have to such inspection by the State. All production data shall be deemed to have been "obtained in confidence" for purposes of Government Code Section 6254(e), and be disclosed to other persons only with the written consent of Lessee or upon a determination by the State that their disclosure is in the public interest.
- Lessee shall supply to the State all physical and factual exploration results, logs, (b) surveys and any other data in any form resulting from operations on the Leased Land or lands unitized with them, including, but not limited to, any surveys, tests or experiments conducted on the Leased Land by Lessee or by any person or entity acting on behalf of Lessee. Lessee shall also supply to the State the results for all geological, geophysical and geochemical tests, experiments, reports and studies, interpretive or factual, including, but not limited to, reservoir studies, computer modeling work and tests, experiments, reports or studies relating to injection or reservoir depletion on the Leased Land or lands unitized with them, irrespective of whether the results of such tests, experiments, reports or studies contain sensitive proprietary or confidential information or trade secrets. All of the aforementioned data and results shall be supplied to the State within thirty (30) days of completion of any recorded portion of the operation, test, experiment, report or study from which the data or results are obtained. All data and documents supplied by Lessee pursuant to this Paragraph 20 shall be deemed to have been "obtained in confidence" for purposes of Government Code Section 6254(e) and be disclosed to other persons only with the written consent of Lessee or upon a determination by the State that disclosure is in the public interest. determining the public interest the State shall consider the interest of Lessee.

21. EXAMINATION OF BOOKS

Lessee waives all rights it may have to prevent the State's examination at reasonable times of the books and records of any individual, association or corporation which has transported for, or received from, Lessee any geothermal resources produced, utilized, saved or sold from the Leased Land. Lessee waives all rights it may have to prevent the State's examination at reasonable times

of the books and records of any such individual, association or corporation with respect to such individual's, association's or corporation's operations, wells, improvements, machinery and fixtures used on or in connection with the Leased Land.

22. WAIVER OF USE OF DATA

Lessee waives any statutory or other right to prevent disclosure to the State, or a duly authorized employee or representative of the State, of any information, reports, data or studies of any kind filed by Lessee with any Federal, State or local agency relating to the Leased Land, the geothermal resources thereunder or any operations performed on the Leased Land or lands unitized therewith, irrespective of whether such information, reports, data or studies contain sensitive, proprietary or confidential information or trade secrets. All information filed with the State as required by this Lease shall be available at all times for any use of the State or its duly authorized representatives. Any information, reports, data or studies obtained by the State from any public agency and which are not public records shall be deemed to have been "obtained in confidence" for purposes of Government Code Section 6254(e), and may be disclosed to other persons only with the written consent of Lessee or upon a determination by the State that their disclosure is in the public interest. For purposes of this Lease in determining the public interest the State shall consider the interest of Lessee.

23. NOTICES

All notices to be given under this Lease shall be deemed to have been given when made in writing and deposited in the U.S. Mail, registered, with postage prepaid, and addressed as follows:

To the State:	California State Lands Commission		
	Mineral Resources Management Division		
	200 Oceangate, 12th Floor, Long Beach, CA 90802-4331		
	Attention: Division Chief		
	Telephone: (562) 590-5201, Telefax: (562) 590-5295		
To the Lessee:			
	Attention:		
	Telephone: (), Telefax: ()		

The addressees to which the notices shall be mailed may be changed by written notice given by one party to the other as provided above. Nothing contained in this Paragraph 23 shall preclude the giving of any notice by personal service to Lessee or its officers or agents. All payments specified in this Lease shall be made to the State at the address provided for notices to the State, unless the State instructs Lessee to send payments to another address.

24. PRESERVATION OF PROPERTY, WASTE DISCHARGE

Lessee shall perform all work with due regard for the preservation of the Leased Land and with due regard to the environmental impact of its operations in accordance with the following terms and conditions:

- (a) Lessee shall remove the derrick, other equipment and facilities within sixty (60) days after Lessee has stopped using them in its operations.
- (b) All drilling operations shall be conducted in a manner that will eliminate, as far as practical, dust, noise, vibration and noxious odors. Operating sites shall be kept neat, clean and safe. Drilling dust shall be controlled to prevent its widespread deposition. Dangerous material

deposited on trees and vegetation shall be removed. The determination as to what material is dangerous rests with the State.

- (c) Lessee shall file with the Regional Water Quality Control Board a report on any proposed waste discharge in accordance with Section 13260 of the State Water Code. Water shall be discharged in accordance with requirements prescribed by the California Regional Water Quality Control Board, and copies of such requirements and approvals filed with the State. The State and any other agency having jurisdiction over the affected lands shall also approve in advance the place and manner of such waste discharge.
- (d) Lessee shall notify the California Department of Fish and Wildlife and the U.S. Fish and Wildlife Service before beginning any operations which may adversely affect fish and wildlife resources. Lessee shall conduct its operations in a manner which will not interfere with the right of the public to fish upon and from the public lands of California, and which will not preclude the right of the public to reasonable use of public lands and waters.
- (e) This Lease is granted subject to Section 25 of Article 1 of the California Constitution, which provides that the people shall have the right to fish upon and from the public lands of the State and in the waters thereof, and the State hereby reserves in favor of the people the absolute right to fish upon the surface of the Leased Land.
- (f) Any operations disturbing the surface of the soil, including road building, construction and movement of heavy equipment, shall be conducted in a manner that will not result in unreasonable damage to trees and plant cover in soil erosion or in degradation of the waters of California including fish and aquatic life habitat.
- (g) Lessee shall maintain existing roads and bridges on or serving the Leased Land in a condition at least equal to that before Lessee's use. New roads and bridges shall be located, constructed and maintained in accordance with applicable State and local specifications.
- (h) Lessee shall compensate the surface owner at market value for all timber cut from the Leased Land or otherwise damaged or destroyed. Lessee shall not obtain borrow pit material from the Leased Land without permission from and payment of its market value to the State.
- (i) Lessee shall protect from damage and repair or replace, when damaged by Lessee, all improvements, structures, trails, ditches, pipelines, water developments, fences, crops and any other property of other persons, including the State, on or near the Leased Land.
- (j) Lessee shall control access to drilling and production sites by the public to prevent accidents or injury to persons or property.
- (k) Lessee shall pond drilling mud in a safe manner and place and, where required by the State, post the site with danger signs and fence it in order to protect persons, domestic animals and wildlife. Any drilling mud that is determined to be hazardous by any Federal, State, or local agency, shall be disposed of in the manner required by the applicable statute or regulation.
- (I) Lessee shall keep to a reasonable number and size any areas to be cleared and graded for drilling and production facility sites. Any clearing and grading shall be subject to State approval, such approval not to be unreasonably withheld.
- (m) During drilling and remedial well operations, Lessee shall monitor continuously effluent gases at the wellhead in order to determine the emissions of H_2S and other toxic materials.

Lessee shall submit to the California Air Resources Board and to any local Air Pollution Control District having jurisdiction, as required, the results of complete gas analyses, including toxic materials that would exist in vapor form at the wellhead temperature.

- (n) Lessee shall keep noise levels for drilling or any other phase of operations to a minimum and at no time shall allow the noise level to exceed local standards.
- (o) The above requirements are in addition to, and shall not be construed as limitations upon, all other regulations, restrictions and measures provided in this Lease which are designed to restrict, modify or minimize the environmental impact of operations under this Lease.

25. EXISTING RIGHTS

This Lease is issued subject to all existing rights at the effective date of this Lease, and such rights shall not be affected by the issuance of this Lease.

26. RESERVATION OF RIGHTS

The State reserves the right to sell or transfer the Leased Land subject to the rights of Lessee under this Lease. The State also reserves the right to issue leases, permits and licenses to the surface and/or subsurface of the Leased Land for any purpose not inconsistent with the rights of Lessee under this Lease. This reservation includes the right of the State at any time during the term of this Lease to grant to persons whatever easements or rights-of-way in the surface of the Leased Land the State determines to be necessary or appropriate, provided that no easement shall be granted that unreasonably interfere with Lessee's operations.

27. COORDINATION OF ACTIVITIES

Lessee shall coordinate activities with other State lessees or permittees for the development of geothermal resources on lands nearby or adjacent to the Leased Land. Such coordination includes, but is not limited to, giving the State lessees or permittees the right to use Lessee's access roads and unitizing or pooling the Leased Land with other leased or permitted lands, if the State determines that such action would facilitate the most efficient development of the State's geothermal resources, taking into account Lessee's economic interest.

28. COMPLIANCE WITH LAWS

Lessee shall comply with all valid Federal, State and local laws applicable to Lessee's operations on the Leased Land, including, but not limited to, the applicable provisions of Divisions 3 and 6 of the Public Resources Code and all applicable and effective regulations adopted at any time during the term of this Lease under the authority of these statutory provisions.

29. EMPLOYMENT PRACTICES

Lessee shall not discriminate against any person in its employment practices because of race, color, ancestry, national origin, religion, sex, age, marital status, physical disability, AIDS, AIDS-related condition, or sexual orientation. Lessee shall carry at all times full worker's compensation insurance covering all employees engaged in operations under this Lease.

30. TAXES

Lessee shall pay, when due, all taxes and assessments lawfully assessed and levied under the laws of the United States, the State of California or any of the State's political subdivisions against Lessee's interest in the Leased Land, against improvements, property or assets of Lessee situated upon the Leased Land, against the geothermal resources and other products produced from the Leased Land, and against all other rights of Lessee arising out of this Lease. There shall be no deduction from the royalties payable to the State by reason of the levy and payment of such taxes, assessments, fees, charges, or other amount for any of the above described reasons.

31. **BOND**

Within 30 days of the date this Lease is approved by the State, Lessee shall furnish, and maintain until released by the State, a bond or other security device approved by the State, in the amount of six hundred thousand dollars (\$600,000) and in favor of the State for its exclusive use and benefit, guaranteeing the faithful performance by Lessee of the terms and conditions of this Lease. This requirement shall be separate from any other bonding provisions of any other federal, state or local agency having jurisdiction over Lessee's operations on the Leased Land. The amount of the bond may be reviewed on each fifth (5th) anniversary of the Lease and shall be adjusted so that at no time shall the amount be less than ninety percent (90%) of the estimated cost of abandoning the wells authorized under this Lease.

32. INDEMNIFICATION AND INSURANCE

- (a) Lessee shall be liable to the State for all damage to any reservoir underlying the Leased Land and any loss of geothermal or other natural resources to the extent such loss is caused by the negligence of, or the breach of any provision of this Lease by, or noncompliance with any applicable statutes or regulations by, the Lessee, its employees, servants, agents or contractors. Nothing in this Lease shall diminish any other rights or remedies which the State may have in connection with any such negligence or breach.
- Lessee shall indemnify the State and hold it harmless from any and all claims, actions, causes of action, liabilities, losses, costs, damages and expenses, including, without limitation, for loss of or damage to property, injury to or death of a person or persons, or other harm, including harm to the environment, arising out of or connected with the issuance of this Lease or acts or omissions by or on behalf of the Lessee under this Lease or on the Leased Land. or any breach of any of Lessee's obligations under this Lease. Lessee waives any defense to an action for breach of a covenant of this Lease or for damages or indemnification, including without limitation any such action resulting from a toxic or hazardous substances spill or other harm to the environment, based on the fact that the act or omission complained of was committed by an independent contractor. Lessee agrees to assume responsibility for all acts and omissions of its independent contractors, whether or not such contractors, at the time of the act or omission, are acting within the scope of their employment or license. The foregoing waiver by Lessee of the defense that the act or omission complained of was committed by an independent contractor, and the assumption of liability by Lessee for all acts and omissions of its independent contractors, shall inure exclusively to the benefit of the State Lands Commission and is not intended to extend to or provide any benefit to third parties, including without limitation, other state and federal agencies. The obligations of Lessee under this subparagraph shall survive the expiration or earlier termination of this Lease.
- (c) Lessee shall procure and maintain at Lessee's sole cost and expense a commercial general liability policy of insurance applying to the Leased Land, the operations of the Lessee therein and the business operated by Lessee. Such insurance shall be written on an occurrence basis and shall include broad form contractual liability insurance coverage insuring Lessee's indemnification obligations under this Lease and naming the State by endorsement as additional insured to the extent of the indemnity obligations assumed hereunder. Such coverage shall have liability limits of at least two million dollars (\$2,000,000.00) in Current Dollars (as defined below) per occurrence, and a general aggregate limit of at least five million dollars (\$5,000,000.00) in

Current Dollars; provided, however, that such liability limits may be provided through a combination of primary and excess (i.e., umbrella) insurance policies. Any liability insurance policy shall be written to apply to all bodily injury, property damage, personal injury and other covered loss, however occasioned, during the policy term, and shall be endorsed to provide that such coverage shall be primary and that any insurance maintained by the State shall be excess insurance only. Such coverage shall also contain commercially reasonable endorsements as reasonably requested by the State and shall provide the broadest scope of coverage for liability arising from pollution, explosion, collapse and underground property damage as is available and commercially appropriate. The insurance required by this subparagraph shall provide for severability of interests; shall provide that an act or omission of any one of the named or additional insured shall not reduce or avoid coverage to the other named or additional insured; and shall afford coverage of all claims based on acts, omissions, injury and damage, which claims occurred or arose (or the onset of which occurred or arose) in whole or in part during the policy period. All policies shall be issued by insurers admitted to transact business in California and that have a rating of at least A:XI in the then-current edition of Best's Insurance Guide. Lessee shall deliver a certificate of insurance to the State as soon as practicable after securing the required insurance. All policies shall contain an undertaking by the insurer or their authorized agent to notify the State in writing not less than thirty (30) days prior to any material change, reduction in coverage, cancellation or other termination thereof. Lessee shall furnish the State with proof of renewal or binders for new insurance at least five (5) days before the expiration date of each policy.

- (d) Lessee shall repair all damage to the Leased Land, and to fixtures, improvements or personal property on the Leased Land caused by or resulting from operations of or on behalf of Lessee under this Lease, or the breach of any of Lessee's obligations under this Lease. Lessee shall not be responsible for any damage caused by or resulting from the State's sole negligence.
- (e) Lessee shall maintain Worker's Compensation Insurance as required by law and Employer's Liability Insurance with limits of not less than one million dollars (\$1,000,000.00) in Current Dollars per occurrence, and in form reasonably satisfactory to State.
- (f) Lessee shall maintain business auto liability insurance with limits of not less than one million dollars (\$1,000,000.00) in Current Dollars per occurrence. Such insurance shall cover liability arising out of any auto including owned, hired and non-owned autos, and shall name the State as additional insured by endorsement.
- (g) "Current Dollars" means a dollar amount calculated by multiplying the dollar amount specified in this Lease by a fraction, the numerator of which is the Consumer Price Index ("CPI") for All Urban Consumers (U.S. All Items, Series ID CUUR0000SA0, Base Year 1982-84 = 100, published by the U.S. Department of Labor, Bureau of Labor Statistics) last published prior to the anniversary of the effective of this Lease and the denominator of which is the CPI last published immediately prior to the effective date of this Lease.

33. CANCELLATION

- (a) The State may cancel this Lease at any time before the discovery of commercially valuable deposits of geothermal resources on the Leased Land or lands unitized with them upon the failure of Lessee, after sixty (60) days' written notice and demand for performance, to exercise due diligence and care in the prosecution of the exploratory or development work on the Leased Land or lands unitized therewith, in accordance with the terms and conditions of this Lease.
- (b) After the discovery of commercially valuable deposits of geothermal resources on the Leased Land, the State may cancel this Lease upon failure of Lessee, after ninety (90) days' written notice and demand for compliance, to cure any breach or default under the terms and

conditions of the Lease. Notwithstanding the foregoing, as to any breach or default which through the exercise of reasonable diligence cannot be cured within the 90-day time period allotted therefore, provided Lessee, within said 90-day period, commences measures to cure the breach or default and diligently pursues such measures to completion, Lessee's time to affect cure shall be extended as reasonably necessary to cure the breach or default. If the Lease is canceled, Lessee shall have the right to retain under this Lease all wells currently being drilled or producing geothermal resources in commercial quantities, plants and facilities, and rights-of-way through the Leased Land that will enable Lessee to drill and operate the retained well or wells. The State shall prescribe a reasonable rental, not to exceed the initial rental payable under subparagraph 5(e) of this Lease, and other reasonable terms and conditions for operation of the retained wells. Royalty shall be calculated per subparagraphs 5(a), 5(b), and 5(c) of this Lease. If the Lease is canceled, Lessee shall have a reasonable time within which to remove any property owned or used by Lessee in connection with its operations under the Lease, and shall comply with the restoration and removal conditions of this Lease.

34. WAIVER OF BREACH

The waiver by the State of any breach or default shall not constitute a waiver of any other breach or default of the same or any other provision of this Lease, regardless of the State's knowledge of the other breaches or defaults. The State's acceptance of monies from Lessee shall not constitute a waiver of any preceding breach or default, other than the failure of Lessee to pay the particular monies accepted, regardless of the State's knowledge of the preceding breach or default at the time of its acceptance of the monies. Acceptance of monies by the State after termination of the Lease shall not constitute a reinstatement, extension or renewal of the Lease or revocation of any notice or other act by the State.

35. SOLVENCY

If at any time during the term of this Lease, Lessee is insolvent under the Federal bankruptcy laws, makes a voluntary assignment of its assets for the benefit of creditors, or is adjudged as bankrupt either upon Lessee's voluntary petition in bankruptcy or upon the involuntary petition of Lessee's creditors, the State shall have all the rights and privileges afforded it by Federal bankruptcy laws to protect its interests under this Lease.

36. ASSIGNMENT AND SUBLETTING

Lessee may assign or transfer this Lease or any interest it may have in this Lease. and may sublet all or part of the Leased Land as provided in Sections 6804 and 6925 of the Public Resources Code. The State's written consent, which shall not be unreasonably withheld, to an assignment, transfer or sublease may be conditioned upon, among other things, the State's participation in any consideration received by Lessee or its successors in interest for the assignment, transfer or sublease if this participation is deemed by the State to be in its best interests. The consent to any assignment, transfer or sublease shall not be deemed as consent to any subsequent assignment, transfer or sublease. Any assignment, transfer or sublease made without the State's consent, whether voluntary or by operation of law, shall be of no effect and shall be a breach that gives to the State the right to cancel this Lease. Lessee may subcontract, without State approval, parts of the work to be performed under this Lease so long as Lessee remains responsible to the State for the work that is subcontracted. Upon approval by the State of any assignment, transfer or sublease, the Assignee, Transferee or Sublessee shall be bound by the terms of this Lease to the same extent as if such Assignee, Transferee or Sublessee were the original Lessee, any conditions in the assignment, transfer or sublease to the contrary notwithstanding. Lessee shall submit to the State documentation of any acquisition, merger, name change, corporate reorganization or any other organizational restructuring that affects the entity which holds this Lease.

(b) For purposes of this Paragraph 36, any transaction or conveyance, or series of transactions or conveyances occurring within six (6) consecutive months, regardless of form or structure, that results in the transfer of either a controlling interest in Lessee or a fifty percent (50%) or greater ownership interest in any business entity owning a controlling interest in Lessee, shall be deemed an assignment or transfer of the Lease for which State approval is required. A "controlling interest" in Lessee is thirty-five percent (35%) or more of: (i) the voting stock of the Lessee if it is a corporation; (ii) the general partnership interest if the Lessee is a general or limited partnership; or (iii) the membership interest if the Lessee is a limited liability company.

37. QUITCLAIM

Lessee may file with the State at any time a written quitclaim of all its rights under this Lease or of any portion of the Leased Land as provided in Sections 6804.1 and 6914 of the Public Resources Code. Upon acceptance by the State the quitclaim shall be effective as of the date it is filed with the State, provided that Lessee and its surety shall be subject to the continued obligation to pay all accrued rentals and royalties and to abandon all wells drilled into the lands to be quitclaimed in accordance with the terms of this Lease and the regulations of the State. The quitclaim shall not release Lessee or its surety from any liability for breach of any obligation of this Lease with respect to which Lessee is in default at the time of filing of the quitclaim.

38. SURRENDER OF PREMISES

If Lessee is not the surface owner at the expiration or sooner termination of this Lease, Lessee will indemnify the State from all liability from all actions or omissions of Lessee in connection with the abandonment and surrender of the surface estate; provided, however, the State reserves the right to require Lessee to abandon properly all wells and drill sites on the Leased Land or lands serving the Leased Land in a manner approved in writing by the State and the CDOGGR. Such wells and drill sites shall be abandoned within the time specified by the State, and at the expense of Lessee. This Paragraph 38 shall survive the termination of the Lease.

39. FORCE MAJEURE

The obligations imposed upon Lessee by this Lease may be suspended during the time Lessee is prevented from complying with them by wars, strikes, riots, acute and unusual labor or material shortages, acts of God or such other unusual conditions which are beyond the control of Lessee. In order for any obligation imposed upon Lessee to be suspended, Lessee must inform the State in writing as soon as possible that a condition warranting suspension has arisen. Lessee shall inform the State in writing as soon as possible when such condition ceases to exist.

40. POSSESSORY INTEREST TAX

Lessee recognizes and understands in accepting this Lease that it may be liable for the possessory interest tax imposed by the city or county on its leasehold.

41. SEVERABILITY

If any provision of this Lease is judicially determined to be invalid, it shall be considered deleted from the Lease and shall not invalidate the remaining provisions.

[SIGNATURES ON NEXT PAGE]

CALIFORNIA STATE LANDS COMMISSION

1/27/2014

Chief

Mineral Resources Management Division

Approved as to form:

Mark Meier, Chief Counsel

California State Lands Commission

Counsel

* In executing this document, the following are required:

Corporations:

1.

Affix Corporate Seal.

Attach certified copy of the resolution or other document authorizing its execution on behalf of the corporation.

Individuals:

Attach acknowledgment of Signature.



County of San Diego
On January 24, 2014 before me, Toni Smith DATE PRINT NAME OF NOTARY
a notary public in and for the State of California, personally appeared \(\)
I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.
TONI SMITH Commission No. 1973307 NOTARY PUBLIC-CALIFORNIA BAN DIEGO COUNTY My Comm. Expires MARCH 26, 2016
State of California
County of Sel psychul
On before me,,
DATE PRINT NAME OF NOTARY
a notary public in and for the State of California, personally appeared , who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by hi signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.
I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.
WITNESS my hand and official seal.
,

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT					
State of California					
County of Los Angeles					
On February 27, 2014	Before me, _	Elaine Casarrubias, Notary Public Here Insert Name and Title of the Officer			
	**************Maı	rina Voskanian ******************			
Name(s) of Signer(s) ************************************					
who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their-authorized capacity(les), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.					
ELAINE CASARRUBIAS Commission # 1969657 Notary Public - California Los Angeles County My Comm. Expires Mar 2, 2016		er PENALTY OF PERJURY under the laws of California that the foregoing paragraph is true			
	WITNESS my hand and official seal.				
Place Notary Seal Above	Signature	Signature of Notary Public			
OPTIONAL Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document					
Description of Attached Document					
Title or Type of California State Lands Commission State of California Geothermal Resources Lease Document: (Subsurface Only-No Surface Use) PRC 9116,0					
Document Date:		Number of Pages:			
Signer(s) Other Than Named Above:					
Capacity(les) Claimed by Signer(s)					
Signer's Name: Individual Corporate Officer Title(s): Partner -	RIGHT THUMBPRINT OF SIGNER Top of thumb here	Signer's Name; individual Corporate Officer – Title(s): Partner - Limited General Attorney in Fact Trustee Guardian or Conservator Other:			
Signer is Representing:		Signer is Representing:			

LAND DESCRIPTION

Three (3) parcels of land situate in Township 10 South, Range 13 East, Township 11 South, Range 13 East, and Township 11 South, Range 14 East, SBM., County of Imperial, State of California, and more particularly described as follows:

Parcel 1 - Patented School Lands, Portion of Section 36, T10S, R13E, SBM.

The West ½ of Section 36, Township 10 South, Range 13 East, SBM., Patented January 16, 1911 in Book 30 at Page 216, on file at the Sacramento Offices of the California State Lands Commission.

EXCEPTING THEREFROM the Northwest ¼ of the Northwest ¼ of said Section 36, Patented February 21, 1958 in Book 57 at Page 204, on file at the Sacramento Offices of the California State Lands Commission.

Parcel 2 - Department of Fish and Wildlife, Portion of Section 1 and Section 12, T11S, R13E, SBM., and a portion of Section 6, T11S, R14E, SBM.

All of Parcels 25, 26, 27, and 28 described in SCC No. 28118, Final Order and Decree of Condemnation as to Parcels Nos. 1, 25, 26, 27, and 28, filed July 19, 1955 in Book 915 at Page 107 Official Records of said County.

Parcel 3 - Department of Fish and Wildlife, Portion of Section 1, T11S, R13E, SBM.

All of Parcel 24 described in SCC No. 28118, Final Order and Decree of Condemnation as to Parcels Nos. 6, 8, 9, 11, 16, 21, and 24, filed June 29, 1954 in Book 888 at page 584 Official Records of said County.

END OF DESCRIPTION .

Prepared October 14, 2013 by the California State Lands Commission Boundary Unit.



EXHIBIT B

TERMS AND CONDITIONS FOR A NON-SURFACE OCCUPANCY NEGOTIATED GEOTHERMAL LEASE ON THE WISTER WATERFOWL MANAGEMENT AREA

The Wister Waterfowl Management Area was purchased and developed by the California Department of Fish and Wildlife (CDFW) for the purpose of maintaining waterfowl habitat, and is dedicated to that purpose in perpetuity. Geothermal resources can be developed in a way that is consistent with this principle and primary use. The following are included as special conditions to this lease, in order to ensure the compatibility of geothermal development with waterfowl habitat maintenance operations.

1. Imperial Wells Power LLC ("Lessee") shall conduct and complete a nesting season burrowing owl survey, as well as a pre-construction take avoidance survey. These surveys shall be submitted to the address below:

Victoria Chau
Environmental Scientist
CA Dept. of Fish and Wildlife
Colorado River Program
P.O. Box 2160, Blythe, CA 92226

- 2. Lessee shall not conduct any construction or drilling operations within 500 feet of a habitat occupied by the Yuma clapper rail.
- 3. No well pad construction or well drilling activities on Well Pad #5 shall be performed during the duck hunting season of October 18 through January 26 of each year.
- 4. All vegetation and soil that is removed for the proposed project shall be disposed of in a safe and legal manner such that the plant material and soil (which contains seeds) are not released into the surroundings (e.g., trucks hauling such material should be tightly covered).

AHIT TS HALL

EXHIBIT D

AMENDMENT

STATE GEOTHERMAL RESOURCES LEASE PRC 9116.0 IMPERIAL COUNTY

This amendment agreement is entered into by and between the State of California, through the California State Lands Commission ("State") as Lessor, and Imperial Wells Power LLC ("Lessee").

Witnesseth

Whereas, State Geothermal Resources Lease PRC 9116.0 ("Lease") was issued to Imperial Wells Power LLC, effective March 1, 2014; and

Whereas, the Lease, as issued, contained 1,571 acres of State Proprietary lands owned by the California Department of Fish and Wildlife. The Lease granted no authorization to develop or utilize geothermal resources from the surface of those parcels, but did require that Lessee commence exploratory drilling operations from private lands into the Lease lands within two (2) years of the issuance of the Lease; and

Whereas, Lessee tendered a Quitclaim Deed, effective January 15, 2015, to the State surrendering all of its right, title and interest for approximately 246 acres of the original 1,571 acres, thus reducing the Lease area to approximately 1,325 acres as approved by Lessor on February 20, 2015;

Accordingly, the State and Lessee desire to amend the Lease to provide for a reduction of the financial security and an extension of the drilling term;

Now, therefore, the State and Lessee do hereby agree as follows:

Effective upon the approval by the Commission, on the <u>29th day of June 2015</u>, the Lease shall be amended as follows:

1. The first sentence of Paragraph 9(a) of the Lease is hereby amended to read as follows: Notwithstanding anything to the contrary in Paragraph 1 of this Lease, Lessee shall commence exploratory drilling operations within five (5) years of the effective date of this Lease.

- 2. Paragraph 31 of the Lease is hereby deleted in its entirety and replaced with the following: "Lessee shall furnish, and maintain until released by the State, a bond or other security device approved by the State, in the amount of one hundred thousand dollars (\$100,000) per well in favor of the State for its exclusive use and benefit, guaranteeing the faithful performance by Lessee of the terms and conditions of this Lease. The initial bond or other security device shall be provided to Lessor within 15 days of Lessor's approval of this Amendment. The bond amount shall be increased by \$100,000 per well for any subsequently drilled well and Lessee agrees to provide such new bond to Lessor prior to the drilling of such a new well. This bonding requirement shall be separate from any other bonding provisions of any other federal, state or local agency having jurisdiction over Lessee's operations on the Leased Land. The amount of the bond may be reviewed on each fifth (5th) anniversary of the Lease and shall be adjusted so that at no time shall the amount be less than ninety percent (90%) of the estimated cost of abandoning the wells authorized under this Lease."
- 3. Exhibit A "Land Description" of the Lease is hereby replaced with the new Exhibit A "Land Description", attached to this amendment agreement.

All other terms and conditions of the Lease are unchanged. As herein amended, the Lease is and shall remain in full force and effect.

	California State Lands Commission:
Date	Marina Voskanian, P.E.
	Division Chief
	Mineral Resources Management
	Imperial Wells Power LLC:
Date	-
Dale	Title:
	Imperial Wells Power LLC
	impenal wells Power LLC